DON’T FORGET SUSTAINABILITY WHEN TALKING CLIMATE!

Jernej Stritih
Director
...crisis is not unexpected...

Club of Rome: Limits to Growth, 1968
...climate change in Slovenia

Rio 1992 - 2012

- Idea of sustainable development - Agenda 21
- Convention on Climate Change
- Convention on Biodiversity
Dimensions of sustainability

- **Economy**
- **Society**
- **Environment**

- **Mitigation** (Emission Reduction)
- **Adaptation**
Strategy on the transition to low carbon economy

• Published for public debate today

• Definition of low carbon economy: Economy, whose greenhouse gas emissions are within the absorption capacity of the global ecosystem and is at the same time based on the principles of sustainability

• Strategic environmental impact assessment – mainly positive impacts

• Economic, social impacts – should be positive
# Goals

<table>
<thead>
<tr>
<th>Global goal</th>
<th>Halt the increase of global average surface temperature below 2°C</th>
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<tbody>
<tr>
<td>Strategic goals of Slovenia</td>
<td>Lower the national GHG emissions TGP to less than 4 million ton of CO₂ equivalent by 2050</td>
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<td>Make sure that vulnerability of Slovenia to effects of climate change does not increase above the present level</td>
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## Strategic approach

<table>
<thead>
<tr>
<th>Reducing emissions through green growth</th>
<th>Green Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Green Taxes</td>
</tr>
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<td>Public Expenditure</td>
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<td>Green Tax Reform</td>
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</tbody>
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<thead>
<tr>
<th>Adaptation</th>
<th>Improving predictions and assessment of vulnerability</th>
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<tbody>
<tr>
<td></td>
<td>Integration of adaptation objectives into sectoral policies</td>
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<td></td>
<td>Funding</td>
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</tbody>
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<thead>
<tr>
<th>Horizontal strategies</th>
<th>Innovation and Education</th>
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<tbody>
<tr>
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<td>Local and Regional Initiative</td>
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<td></td>
<td>Awareness and Communication</td>
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<td>Active Role in International Community</td>
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# Emission reduction and adaptation

<table>
<thead>
<tr>
<th>Thematic area</th>
<th>Emission reduction</th>
<th>Adaptation</th>
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</thead>
<tbody>
<tr>
<td>Energy</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Transport</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Low carbon technologies</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Buildings</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Industry</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Services</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Agriculture</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Solid waste</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Spatial planning</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Forests, sinks, biodiversity</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Waters</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Health</td>
<td>✓</td>
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<tr>
<td>Natural disasters</td>
<td>✓</td>
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Pathway 2050

The graph illustrates the emissions from various sectors and sources, including Energy, Housing and services, Industry (fuels), Industrial processes, Transport, Non-CO2 emissions (Agriculture), and Non-CO2 emissions (others), from the years 2000 to 2050. The emissions are measured in Mt CO2 eq. The graph shows the current policy trend and indicates a significant reduction in emissions over time, aiming to reach near-zero emissions by 2050. The data is presented with year labels: 2000, 2005, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, and 2050.
Example of forests

- Sustainable, close to nature management and use
- Rural economy
- Carbon sink under Kyoto 1.32 Mt/y (6% of emissions)
- Biodiversity – Natura 2000
- Threats of climate change:
  - Species loss/switch
  - Forest fires, calamities
  - Extreme weather
Protecting forests - multifunctionality

- Risk of loss – high CO₂ emissions
- Vitality of forests – biodiversity
- Parallel strategies:
  - Intensive silviculture
  - Natural processes
- Increased harvest
- More low-carbon products
- High energy potential
- Local work
- Reducing carbon sink

Possible development of standing timber and harvest in Slovenia Mm³/year

- 2005: 3.24
- 2010: 4.5
- 2020: 5
- 2030: 5.5
- 2040: 6
- 2050: 7.61
- 2060: 7.61
- 2070: 7.61
- 2080: 7.61
- 2090: 7.61
- 2100: 7.61

Harvest:
- 2005: 3,24
- 2010: 4,5
- 2020: 5
- 2030: 5,5
- 2040: 6
- 2050: 7,61
- 2060: 7,61
- 2070: 7,61
- 2080: 7,61
- 2090: 7,61
- 2100: 7,61

Accumulation:
- 2005: 4,37
- 2010: 3,11
- 2020: 2,61
- 2030: 2,11
- 2040: 1,61
- 2050: 0
- 2060: 0
- 2070: 0
- 2080: 0
- 2090: 0
- 2100: 0

Total standing volume:
- 2005: 311
- 2010: 327
- 2020: 353
- 2030: 374
- 2040: 389
- 2050: 389
- 2060: 389
- 2070: 389
- 2080: 389
- 2090: 389
- 2100: 389
Other examples

- Low carbon technologies: less emissions, workplaces, competitiveness
- Water: hydropower, water supply, agriculture, biodiversity…
- Buildings: energy efficiency in heating and cooling, resilience to weather
- Spatial planning: energy efficiency, reducing demand for transport, identify and avoid risk zones
  - …
Summary

• Combating climate change is an opportunity for sustainable development

• Synergy

• Multifunctionality

• Too narrow focus creates new (possibly larger) problems